

File



## United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

PHOENIX AREA OFFICE

P.O. BOX 10

PHOENIX, ARIZONA 85001

IN REPLY  
REFER TO:

## BRANCH OF ENVIRONMENTAL QUALITY SERVICES

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TO: Alisa Wong

FAX NUMBER: \_\_\_\_\_

ORGANIZATION: EPAFROM: John Krause

## DESCRIPTION AND/OR MESSAGE:

Please look this over and let me know what you think.  
Since the Work Plan is the "Scope of Work", what about  
incorporating qualifications into the plan?

NUMBER OF PAGES: 6 (W/COVER SHEET)DATE SENT: 4-14-97

**ROADS SHOP FACILITY WORK PLAN CONTRACTOR REQUIREMENTS****A. WORK PLAN FINALIZATION - EPA APPROVAL REQUIRED**

Preparation of Work Plan Standard Operating Procedures, Site Safety and Health Plan, and deficiencies as outlined in EPA correspondence dated October 8, 1996 for EPA Region IX approval. Work may not commence nor is this requirement satisfied until EPA Region IX has approved of the Work Plan \_\_\_\_\_ls

**TOTAL - Work Plan Finalization** \_\_\_\_\_

**B. SITE ACTIVITIES**

1. **Site Mobilization and demobilization** \_\_\_\_\_ls

2. **Heating Oil Pipeline**

a. Excavation, removal, and disposal of 2000 feet of Pipeline (3.2.1) \_\_\_\_\_/ft\_\_\_\_\_sum

b. Draining and disposal of used heating oil (not to exceed 110 gal) (3.3.1) \_\_\_\_\_/gal\_\_\_\_\_sum

c. Integrity testing and grouting of Pipeline under Hwy 51 (3.3.1) \_\_\_\_\_ls

d. Excavation, transportation, and stockpile of 2000 cubic yds of heating oil contaminated soils \_\_\_\_\_/yd\_\_\_\_\_sum

e. Purchase, transportation, and backfill of 2000 cubic yards of borrow soils (3.2) \_\_\_\_\_/yd\_\_\_\_\_sum

f. Backfill of soils removed \_\_\_\_\_ls

g. Assessment and sampling of subsurface in the area of Pipeline (5.3.1) \_\_\_\_\_ls

**Subtotal - Heating Oil Pipeline Closure** \_\_\_\_\_

3. **Injection Well System Closure**

a. Excavation, transportation, and stockpile of 200 cubic yds of petroleum contaminated soils at the Injection Well (3.2.2) \_\_\_\_\_/yd\_\_\_\_\_sum

b. Relocation of aboveground storage tank along Discharge Line alignment (3.2.3) \_\_\_\_\_ls

c. Excavation, removal, and disposal of 80 feet of Discharge Line from west end of Roads Shop to Discharge Outlet (3.2.3) \_\_\_\_\_/ft\_\_\_\_\_sum

d. Removal and disposal of 15 55-gallon drums liquid and one 55-gallon drum sediment from drain (3.3.2) liquid\_\_\_\_\_/gal\_\_\_\_\_sum  
sedimt\_\_\_\_\_/gal\_\_\_\_\_sum

- e. Steam cleaning of drain and removal of two 55-gallon drums of used steam cleaner and petroleum residue (3.3.3) \_\_\_\_\_/gal\_\_\_\_\_ sum
- f. Integrity testing and grouting of drain under facility (3.3.4) \_\_\_\_\_ls
- g. Concrete fill of South Sump and Vertical Pipe (3.3.5) \_\_\_\_\_ls
- h. Assessment and sampling of subsurface in the area of South Sump, Discharge Line, Vertical Pipe, and Injection Well (5.1.2 to 5.1.7) \_\_\_\_\_ls
- i. Assessment and sampling of drain liquid and sediment (5.1.1) \_\_\_\_\_
- Subtotal - Injection Well System Closure** \_\_\_\_\_
4. **Roads Shop Yard Cleanup**
- a. Removal and disposal of concrete pad (3.2.4) \_\_\_\_\_ls
- b. Excavation, characterization, transportation, and stockpile of 400 cubic yds of petroleum contaminated soils (3.2.4) \_\_\_\_\_/yd\_\_\_\_\_ sum
- Subtotal - Roads Shop Yard Cleanup** \_\_\_\_\_
5. **Soils Logging (3.4)** \_\_\_\_\_ls
6. **Tank Closure Verification (3.5)**
- a. Roads Shop Diesel UST Assessment (5.4) \_\_\_\_\_ls
- b. Power Station UST Assessment (5.4) \_\_\_\_\_ls
- c. Jail UST Assessment (5.4) \_\_\_\_\_ls
- d. Removal and assessment of 500-gallon heating oil tank as shown on Drawing 2 (5.4) \_\_\_\_\_ls
- e. Roads Shop AST Assessment (5.5) \_\_\_\_\_ls
- Subtotal - Tank Closure Verification** \_\_\_\_\_
7. **Facility and Sampling Location Surveys (3.9, 3.10 & 7.3.2)** \_\_\_\_\_ls
8. **Site Safety and Health (3.11, 7.1, & 7.3.1)** \_\_\_\_\_ls
9. **Assessment of ground water with the conduct of 34 sampling locations to delineate contamination plume using direct push technology (5.6.3)** \_\_\_\_\_/hole\_\_\_\_\_ sum
10. **Site Recordkeeping (7.2)** \_\_\_\_\_ls

**11. Field QA/QC**

- a. Sample designation (4) \_\_\_\_\_ 1s
- b. Equipment maintenance (7.4 & 7.5) \_\_\_\_\_ 1s
- c. Equipment decontamination and disposal (7.4 & 7.5) \_\_\_\_\_ 1s

**Subtotal - Field QA/QC** \_\_\_\_\_**TOTAL - SITE ACTIVITIES** \_\_\_\_\_**C. WORK PLAN REPORT**

- 1. Copying fees associated with the assembly of 15 copies of the Report which fulfills the requirements of the work plan \_\_\_\_\_ 1s
- 2. Heating Oil Line System Closure Report
  - a. Documentation of excavation and backfill quantities \_\_\_\_\_ 1s
  - b. Documentation of contaminant conditions in soils and ground water to include location and concentration \_\_\_\_\_ 1s
  - c. Documentation of heating oil (if applicable) and piping removed, and location \_\_\_\_\_ 1s
  - d. Recommendations for further site characterization and remediation \_\_\_\_\_ 1s

**Subtotal - Heating Oil Line System Closure Report** \_\_\_\_\_**3. Injection Well System Closure Report**

- a. Documentation of excavation and backfill quantities \_\_\_\_\_ 1s
- b. Documentation of contaminant conditions in soils and ground water to include location and concentration \_\_\_\_\_ 1s
- c. Documentation of wastewater, piping and well removal, and location \_\_\_\_\_ 1s
- d. Recommendations for further site characterization and remediation \_\_\_\_\_ 1s
- e. Review and certification of closure by professional \_\_\_\_\_ 1s

**Subtotal - Injection Well System Closure Report** \_\_\_\_\_**4. Documentation of contaminated soil removal in Roads Shop Yard**

- a. Documentation of excavation and backfill quantities \_\_\_\_\_ 1s

- b. Documentation of contaminant conditions in soils and ground water to include location and concentration \_\_\_\_\_ 1s
- c. Recommendations for further site characterization and remediation \_\_\_\_\_ 1s
- Subtotal - Roads Shop Yard Assessment and Removal Report** \_\_\_\_\_
- 5. **UST Assessment Reports (four sites)** \_\_\_\_\_ 1s
- 6. **Gasoline AST Assessment Report (one site)** \_\_\_\_\_ 1s
- 7. **Charaterization of Hydrogeology (3.8)**
  - a. Provide a description of the stratified layer with emphasis on the hydrogeology \_\_\_\_\_ 1s
  - b. A cross sectional map of the formation to include the drinking water well and Roads Shop locations \_\_\_\_\_ 1s
  - c. Gradient, direction and rate of ground water flow in the area of the grid established in Drawing 2 \_\_\_\_\_ 1s
  - d. Any known fractures or disruptions in the formation \_\_\_\_\_ 1s
  - e. Maximum and average pump rates of, and standing water levels of Wells #1, #2, #3, #5, #6, and #7 \_\_\_\_\_ 1s
- Subtotal - Hydrogeological Report** \_\_\_\_\_
- 8. **Analysis and Recommendations for Wells #1, #2, and #3 (3.6)**
  - a. Discussion of well design \_\_\_\_\_ 1s
  - b. Discussion of contaminant concentrations, and contaminant/petroleum and water movement \_\_\_\_\_ 1s
  - c. Recommended disposition \_\_\_\_\_ 1s
- Subtotal - Well Design and Construction Report** \_\_\_\_\_
- 9. **Drawing Preparation - Soils Contamination (Data gaps shall be documented and discussed)(3.9)**
  - a. Drawing depicting the extent of heating oil/diesel/used oil contamination in the soils described by at least three isoconcentration lines (8015-DRO) \_\_\_\_\_ 1s
  - b. Drawing depicting the extent of gasoline/volatile organic contamination in the soils described by at least three isoconcentration lines (8015-GRO) \_\_\_\_\_ 1s
  - c. Drawing depicting the extent of benzene contamination in the soils described by at least three isoconcentration lines (8240 and BTEX) \_\_\_\_\_ 1s

- d. Drawing depicting the locations and dimensions of contaminated soil removal \_\_\_\_\_ 1s

**Subtotal - Soils Contamination Drawings** \_\_\_\_\_

**10. Drawing Preparation - Ground Water Contamination (Data gaps shall be documented and discussed)(3.9)**

Data obtained through Direct Push Technology or similar sampling tools and data obtained from Wells #4, #5, and #6 will be used to develop the following drawings. Data fluctuations to Wells #4, #5, and #6, during the three other quarterly events will be discussed.

- a. Drawing depicting the extent of heating oil/diesel/used oil contamination on the ground water table described by at least three isoconcentration lines (8015-DRO) \_\_\_\_\_ 1s
- b. Drawing depicting the extent of gasoline/volatile organic contamination on the ground water table described by at least three isoconcentration lines (8015-GRO) \_\_\_\_\_ 1s
- c. Drawing depicting the extent of benzene contamination on the ground water table described by at least three isoconcentration lines (8240 and BTEX). \_\_\_\_\_ 1s

**Subtotal - Soils Contamination Drawings** \_\_\_\_\_

**11. Conclusions and Recommendations - Through the accomplishments of the objectives of the work plan, the Bureau of Indian Affairs shall be provided with a summary of conclusions with regards to sources and pathways, and recommendations with regards to further site characterization and remediation. Furthermore, the BIA will be provided with any other recommendations pertinent to the findings** \_\_\_\_\_ 1s

**TOTAL - Work Plan Report** \_\_\_\_\_

**GRAND TOTAL** \_\_\_\_\_